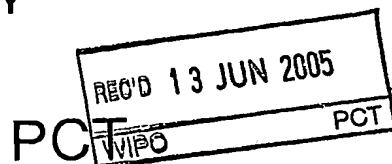


PATENT COOPERATION TREATY

PT12

From the
INTERNATIONAL SEARCHING AUTHORITY



To:

see form PCT/ISA/220

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/US2005/005751

International filing date (day/month/year)
23.02.2005

Priority date (day/month/year)
27.02.2004

International Patent Classification (IPC) or both national classification and IPC
B29B9/12, C08J3/12

Applicant
3M INNOVATIVE PROPERTIES COMPANY

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☒ Box No. VII Certain defects in the international application
- ☒ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



European Patent Office - P.B. 5818 Patentlaan 2
NL-2280 HV Rijswijk - Pays Bas
Tel. +31 70 340 - 2040 Tx: 31 651 epo nl
Fax: +31 70 340 - 3016

Authorized Officer

Fageot, P

Telephone No. +31 70 340-2092



**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/US2005/005751

Box No. I Basis of the opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
 - ☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
 - ☐ a sequence listing
 - ☐ table(s) related to the sequence listing
 - b. format of material:
 - ☐ in written format
 - ☐ in computer readable form
 - c. time of filing/furnishing:
 - ☐ contained in the international application as filed.
 - ☐ filed together with the international application in computer readable form.
 - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/US2005/005751

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	1-21
	No: Claims	22
Inventive step (IS)	Yes: Claims	1-21
	No: Claims	22
Industrial applicability (IA)	Yes: Claims	1-22
	No: Claims	

2. Citations and explanations

see separate sheet

Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

see separate sheet

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

Re Item V.

- 1 The following documents are referred to in this communication:

D1: EP-A-1 063 070
D2: WO-A-02/090454
D3: JP-A-09 057749

- 2 The following statements are made taking into account item VIII.

2.1 Independent claim 1

Document D1, which is considered to represent the most relevant state of the art, discloses (the references in parenthesis applying to this document): a molding material pellet, wherein said pellet has a multiphase structure comprising a core containing a first component and a sheath containing a second component, disposed at least partially around the periphery of said core (*page 3, lines 48-52, fig. 1b*).

From this, the subject-matter of independent claim 1 differs in that the molding material is a heat-curable molding material comprising a heat-curable epoxy-containing material, a thermoplastic component and a curing agent for said epoxy-containing material, wherein the core contains a first heat-curable component and the sheath contains a second heat-curable component.

The subject-matter of claim 1 is therefore novel (Article 33(2) PCT)

The objective problem underlying claim 1: to provide a molding pellet that is less likely to prematurely cure inside the pellet and will thereby exhibit enhanced storage stability, cf description, page 2, lines 15-17.

The solution to this problem proposed in claim 1 of the present application is neither known nor is it suggested from the cited prior art documents.

Consequently the subject-matter of claim 1 meets the requirements of Article 33(3)

PCT.

2.2 Independent claim 16

The same reasoning applies, mutatis mutandis, to the subject-matter of the corresponding independent claim **16**, which therefore is also considered novel and inventive.

2.3 Independent claim 22

Claim **22** lacks novelty because epoxy articles are known from the prior art.

3. Claims **2** to **15** and **17** to **21** are respectively dependent on claims **1** and **16** and fulfills as a result the requirements of Articles 33(2) and (3) PCT.
4. The subject-matter of claims **1** to **22** is considered as susceptible of industrial application (Article 33(4) PCT).

Re Item VII.

1. Independent claims **1** and **16** are not in the two-part form in accordance with Rule 6.3(b) PCT, which in the present case would be appropriate, with the features known in combination from the prior art document D1, cf. item V.2, being placed in the preamble (Rule 6.3(b)(i) PCT) and with the remaining features being included in the characterising part (Rule 6.3(b)(ii) PCT).
2. The features of the claims are not provided with reference signs placed in parentheses (Rule 6.2(b) PCT).
3. Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in the documents D1, D2 and D3 is not mentioned in the description, nor are these document identified therein.

4. A computer translation of document D3 can be obtained, free of charge, from the Internet site of the JPO at the address:
<http://www4.ipdl.jpo.go.jp/Tokujitu/tjsogodben.ipdl?N0000=115>

Re Item VIII.

In respect of Article 6 PCT, the following is observed.

1. It is clear from the description on pages 1, 2 and 4, lines 10 to 12 that the following feature is essential to the definition of the invention:

(1) the curing agent is separated from the heat-curable epoxy-containing material.

Claims **1** and **16** do not contain this feature.

Since independent claims **1** and **16** do not contain this feature they do not meet the requirement following from Article 6 PCT taken in combination with Rule 6.3(b) PCT that any independent claim must contain all the technical features essential to the definition of the invention, cf. the PCT Guidelines 5.15 and 5.33.

2. In claim **4**, dependent on claim **1**, a reference is made to "said curing accelerator" whereas no reference to a curing accelerator can be found in claim **1**. Consequently the subject-matter of claim **4** lacks clarity.
3. In product claim **22** an article is defined in terms of a process (method claim **16**) by which the product is made. As the article is not defined by structural features, the subject-matter of claim **22** lacks clarity, cf. the PCT Guidelines 5.26.